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AMERICAN DYESTUFF REPORTER

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ESTABLISHED 1872

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AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

DYESTUFFS, COLORS and ALLIED CHEMICALS

"Circulated Everywhere Dyestuffs are Used"

Vol. 3 New York, November 25, 1918 No. 22

"THE FUTURE MAY BE REGARDED WITH CONFIDENCE."

These Words, Spoken Last Summer By German Dye Manufacturers, Now Apply More Truly to the American Industry —The Export Trade as a Factor in Its Permanency

WE have a mania, it seems, for harking back to the ancient days when the world was somewhat newer than it is now and the particular form of "Kultur" of which we have just been furnished an example, was one with the telephone and the "toddle" skirt. It has long been a favorite device of writers, whether exalted or humble, who, lacking a means of leading gracefully up to a given subject, plunge their literary nets deep down into the dead past and, when they draw them up, behold! there is a struggling, squirming Parallel firmly entangled in the meshes to flaunt before the delighted eyes of their readers—who are invited to exclaim, "How true this is!"

It was not that the justly celebrated "good old days" were really so much better than the present, nor yet that past performances could always be relied upon to serve as an accurate guide for the conduct of present generations. It merely suffices to attract attention away from the main issues, whatever they may be; it always sounds well and carries with it a pleasing impression of the writer's erudition (acquired from the Encyclopedia Britannica) and gives the reader a warm glow of satisfaction as he senses the connection (real or fancied). But it is a good device and we intend to use it again.

In the days of the Delphic Oracle, then, it was the custom, when one wished to lay a small bet on the current Marathon handicap, to send one's card in to the priestess who acted as the medium and, on being admitted, request her to pick the winner. The lady in question then seated herself upon a tripod above a chasm from which issued weird vapors, went into a trance, writhed a bit as she inhaled the noxious fumes, and eventually volunteered a pronouncement which, history intimates, might be taken to mean almost anything; for, although it sounded deeply portentous, it was couched in language so delightfully vague as to require the united efforts of a whole family at least to determine its significance. And even then there were usually two or three possible meanings.

Oh, to be an Oracle!

No matter whether Athens Marble Preferred went up, down or around,

or who won the pennant, the loser could never claim damages or get anything "on" the priestess, for she could always prove a perfect alibi and show that the other result was what the Oracle had meant all along, only the prognostication had fallen on unintelligent ears.

That was really something like! Nothing that we know of would give us greater satisfaction than to be able to sit down and, in a few well-chosen words, reveal the future life of the youthful but husky American dye industry under the peace regime. We realize that because it is our function to come out once a week and perform in these pages for the benefit of a rapt and eager audience, something of the sort is to be expected of us.

The fact of the matter is that, in the case of the dye industry, this cannot be done for a number of reasons which do not apply in other industries. A contemplation of the present situation makes it a practical certainty that any attempt to handle the subject except in sweeping generalities must inevitably result in dismal failure. No minute predictions can be made, because the number of factors upon which the future of our newly-born synthetic color independence depends are legion, and are themselves largely at the mercy of human vagaries.

Hence, as the task is approached, the longing to borrow the Delphic style of phraseology becomes greater and greater.

For one thing, there is the question of the release of much raw material and machinery which were formerly employed for the manufacture of high explosives. The making of munitions of war will, if we follow England's example, cease almost at once, and tons of crudes and intermediates will become available. Whether the prices of these materials will hold up or not is a moot point, but the general consensus of opinion appears to be that they should drop, and rather rapidly. Toluol, acetic acid, chlorine, wood alcohol, caustic soda and ammonia, all needed in the dye industry, have played a prominent part in the defense of this country, and will now be available in greater quantities than has ever been the case since America began to make her own dyes. The beneficial results will, we believe, make themselves distinctly felt in the next six months, here at home, but more particularly abroad, as the ability to obtain colors in increasing quantities causes manufacturers and dealers to put in a serious bid for their share of the European, Asiatic and South American trade. Just *how* great the effect will be, however, is difficult to estimate, for facts concerning the quantities of these materials which have been employed for munitions, together with statistics as to what proportion of the surplus will be released for the use of the dye manufacturers, are not obtainable at present.

Therefore, although we may appear to hedge, we cannot do better than to say that the really calculable effect will be in the confidence imparted to the industry as a whole. With shipping enough to develop this trade now ready, and the priority bugaboo laid in the dust, plus the feeling of certainty as to his ability to make promised deliveries according to schedule, the unique methods which are the birthright of the American business man will have a chance to reassert themselves in foreign markets. A serious effort to capture this trade must now be made. It should not be difficult. Our resources are second to none; the Government is always ready to aid the opening of negotiations with foreign business houses and will furnish the very best kind of advice about the likes and dislikes of these customers. All that remains is to deliver the goods. There is no reason in the world why Americans cannot make themselves as popular with foreign purchasers as the Germans ever did, and display as great a readiness to cater to the whims upon the satisfying of which depend cordial relations. India, it is

true, is Britain's own; the trade there will be taken care of entirely by the English manufacturers, but China and South America belong largely to anybody who can first give their inhabitants what they want—and in the way they want it. In South America, German propaganda has made great inroads, but since the war the sympathies of the populace have been distinctly with the Allies. Moreover, there is naturally a desire to establish as many ties as possible with the Great Republic to the north because of its position as a champion of the interests of the western hemisphere, and this may be taken advantage of. In the case of China, the Celestial, as a type, cares not who sells him his dyes or anything else; he has no special warmth of feeling for any particular race or creed. The man who gives him the most for his money, and who puts his product up most closely in accordance with his notions of how such things should be done, will get his trade.

Government figures show that dyes, including both synthetic and natural, were exported from this country during the fiscal year which ended June 30, 1916, to the value of $5,102,002; for the 1917 fiscal year, $11,709,287, and for the 1918 fiscal year, $16,921,888. Now that the war is over and the industry really enters its stride, the remaining eight months of the 1919 fiscal year may be expected to boost the value of these exports well over the $22,000,000 mark. From then on, however, if prices drop in anything like the degree which might be expected, the increase valuation is not likely to keep pace with the increase in tonnage, for these figures are the result of an inflation in the prices of dyes of from three to five times the prices prevailing before the war.

With such unlimited opportunities for intelligent expansion, with practically as much as we could wish in the way of raw materials, with a Government which has shown itself to be a staunch defender of the industry, and which has displayed a willingness to enact protective legislation, and with the general patriotic friendliness of the textile, paper, paint and leather trades, the result for which the dye manufacturers of this country have been struggling for ever since 1914 may boldly be said to have been attained with a completeness for which we scarcely dared to hope.

Without the ability to base our conclusions on actual figures, we yet feel safe in saying that the domestic situation is safe for the industry in this country. It is practically guaranteed. There is no longer any doubt

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about it. The industry will live and prosper. Additional details of great importance will undoubtedly develop at the meeting of dye and intermediate manufacturers with the War Industries Board in Washington, which will have taken place by the time this publication is in the hands of its readers, but the outcome is as certain as though it were already a matter of history, and we may now fling back at the Germans their own words, spoken about the German dye industry at a meeting last summer of the German dye ring: "The future may be regarded with confidence!"

SOME DISTINGUISHING FEATURES OF ALIZARINE SAPPHIROLE B & SE

By C. M. Whittaker, B.Sc.

Although in pre-war days there were more than two brands of Alizarine Sapphirole on the market, the B and SE marks were the best known and most important. Alizarine Sapphirole B was the first to be introduced and it was made by the sulphonation of 1.5 di-oxy-anthrachinone (Anthrarufine) to the disulphonic acid, the introduction of two nitro groups into the molecule followed by the reduction of the two nitro groups to amido groups. This color was possessed of excellent fastness to light, but it had one defect in that it was not fast to perspiration or strong saline solutions, such as seawater. To overcome this difficulty the mono sulphonic acid was introduced by the makers and it was found to possess greater fastness to perspiration and to saline solutions; this brand was distinguished by the letters SE, which letters are short for the German *schweissecht*, otherwise "fast to perspiration."

There are many ways of distinguishing between the two brands, as they behave very differently under certain conditions. As is only to be expected from their constitution Alizarine Sapphirole B is more soluble than Alizarine Sapphirole SE, owing to the presence of the additional sulphonic acid group. The solubility of neither type is very good, because if a 1 per cent solution of either type is made, the color commences to fall out of solution below 90 deg. C. As a matter of laboratory routine, solutions of these two colors should not be used at a greater concentration that 1 gr. in 1,000 c.c., otherwise discordant results from the same solution are liable to ensue.

Levelling Properties

Neither of these two types possess the levelling properties of Patent Blue, but of the two Alizarine Sapphirole B is better than SE in this respect, though neither may be used for salting at the boil with any degree of safety; the bath should be cooled down before any fresh addition is made. In actual solution Alizarine Sapphirole SE is much redder than B, whilst if strong sulphuric acid is added to the solution SE is completely precipitated, whilst B remains in solution.

A method of distinguishing the two brands when they are dyed on the fibre is to spot the fibre with 10 per cent sulphuric acid solution, and to allow to lie over-night. Alizarine Sapphirole B will develop a yellow spot, whilst Alizarine Sapphirole SE gives a dull maroon spot. If 1 per cent of Alizarine Sapphirole B and SE are dyed with 10 per cent Glauber's salt and 3 per cent sulphuric acid and 10 per cent copper sulphate is added to the dyebath before the material is entered the B will dye on with very little change—the shade being greener—whereas the SE will only give a dull weak grey shade, due to the formation of an insoluble copper salt. Again, if dyed in

FRED WETZEL & CO. N.Y.

a neutral salt-bath, though neither color has a good affinity for wool under such conditions, the SE dyes better than the B, which may no doubt be attributed to the SE only having one sulphonic acid group as compared with the two sulphonic acid groups of the B.

Another distinguishing dyeing feature between Alizarine Sapphirole B and SE is provided by dyeing on woollen cloth with a silk stripe. It is well known that Alizarine Sapphirole B was recommended for dyeing woolen cloth containing silk effects, in which it is desired to leave the silk white, or subsequently to dye it a different shade so as to produce a shot effect; SE is not so good for this purpose. If Alizarine Sapphirole B and SE are dyed on woollen cloth with silk effects under exactly comparative conditions, it will be found that the SE stains the silk to a distinctly greater degree than does the B brand. Their behavior on being dyed on natural silk also provides some distinctive points. In the first place, Alizarine Sapphirole SE has a better affinity for the silk fibre than the Alizarine Sapphirole B, while if the dyeings are subsequently submitted to the water test—*i. e.*, steeped in cold water for 24 hours—it will be found that practically all the B bleeds off the silk into the water, whilst the SE does not bleed to anything like the same extent as the B brand.

Exposure Tests

My exposure tests have not shown any difference in the fastness of the two brands to light, though, seeing that the B contains an extra sulphonic acid group as compared with the SE, it would not have been surprising had a difference manifested itself, because in the Azo class of dyestuffs the introduction of an additional sulphonic acid group has frequently a diminishing effect on the fastness to light.

Both brands of Alizarine Sapphirole B and SE were largely used in Great Britain, and were accepted as the standard of fastness to light in the dress goods, hat and carpet trades, owing to the fastness to light surpassing that of any other Acid Blue. Alizarine Sapphirole was, and is, a difficult color to manufacture owing to it requiring so many distinct chemical operations, a fault in any of which would affect any subsequent stage in its manufacture. British Dyes Ltd. have, however, overcome these manufacturing difficulties and have put on the market British made Sapphirole, under the name of Alizarine Delphinol which has been found by experience on the big scale to be fully equal in fastness to light to the German product.

Chevrons

A recent application of Alizarine Delphinol has been in the dyeing of the material for the army and navy chevrons now being worn, to indicate years of service overseas. Those people who keep their eyes open will notice that

(*Continued on page* 17)

Frank Hemingway, Inc.
115 Broadway, New York

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VICTORIA BLUE BASE
CRYSTAL VIOLET
CRYSTAL VIOLET BASE
CHROME BROWN
DIRECT BROWN RBR
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DIRECT GREEN GG
DIRECT ROSE
BENZYL CHLORIDE
PICRAMIC ACID
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METAPHENYLENEDIAMINE
PARAPHENYLENEDIAMINE
PHOSGENE
SALICYLIC ACID

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REAL AND "CAMOUFLAGE" SALES OF ALIEN PROPERTY

There is no doubt that the activities of the Alien Property Custodian's office during recent months have rendered a tremendous service to the nation and that they have been effectual in destroying a great part of the German commercial machinery in this country.

So far as we have been able to judge, the sales of enemy-owned property which have been conducted by the Alien Property Custodian have been, in every instance, absolutely bona fide and have resulted in an entire divorcement of German interests from the properties sold. There is always a possibility, however, that under some "camouflage" or other a sale may be effected which will sooner or later restore the properties disposed of to their original owners or to others who are equally dangerous to American business.

Next week The Bayer Company is to be offered for sale at auction by the Alien Property Custodian. Under the terms of sale any American citizen is qualified to bid on the property, which will be awarded to the highest bidder, subject to the sanction and approval of certain committees who must pass upon the bone fide nature of the transaction.

In this connection it is rumored that I. J. R. Muurling, formerly president of the Farben Fabriken of Elberfeld, Germany, and later president of The Bayer Company, intends either individually or as representing a syndicate to bid on the stock of The Bayer Company which is to be offered for sale. It goes without saying that should this rumor prove to be a fact and should Mr. Muurling or his syndicate be awarded the property, a sale to them could be little more than a "camouflage" operation of the flimsiest sort. Mr. Muurling is a man well along in years who has amassed a considerable personal fortune and who would not be likely to be interested in actively conducting such a business as that of The Bayer Company. Although Mr. Muurling is, we understand, a Hollander by birth, he is, nevertheless, a naturalized American citizen and as such is qualified to bid under the regulations promulgated by the Alien Property Custodian. The greater part of his life, however, has been devoted to the service of The Bayer Company and its parent, the Farben Fabriken. The obvious conclusion drawn by anyone conversant with the facts would be that any interest he might take in acquiring the property under an auction sale would be on behalf of his former associates.

The question of confirming a tentative sale made to the highest bidder at auction rests, fortunately, in the hands of several committees who have thirty days in which to investigate all the circumstances surrounding the sale before making it final. There is no doubt in our minds that should Mr. Muurling or his syndicate prove to be the successful bidder, the various committees in question would invalidate the sale for the obvious reasons above mentioned. We sincerely trust, however, that Mr. Muurling will have the good taste to render such action unnecessary by refraining from participating as a bidder when the sale takes place. If, by any chance, he or his syndicate should prove to be successful bidders, we trust that the dyestuff industry as a whole will protest so vehemently that there will be no possibility of the sale being confirmed.

DU PONT DYESTUFFS

Our Development

When this company made its decision to enter the Coal Tar Dyestuff Industry there were two courses of development open.

First, to manufacture an extensive line of colors by taking advantage of the intermediates that could be purchased on the market. Second, the manufacture at the outset of a more limited number of colors, but starting at the bottom with the crudes and manufacturing in our own plants the intermediates required.

The adoption of the first policy would have enabled us to put on the market at an early date a large line of colors which would have found ready sale at considerable profit to ourselves. The second course meant necessarily that our development would be less rapid, that the variety of colors produced at first would be less great and that return upon the increased capital it would be necessary to invest could not be expected for a considerable length of time.

We chose the latter of these two courses, because we believe that the only safe foundation for the development of a self-contained American color industry is the manufacture of a comprehensive line of intermediates, starting at the bottom from the crudes and on such a large scale as to make it economically sound.

Our course is of the most vital interest to the various dyestuff consuming industries, for it guarantees to them an adequate supply of dyestuffs that can never be cut off to leave them again dependent on foreign supplies.

E. I. du Pont de Nemours & Co.

Dyestuff Sales Department

Wilmington **ESTABLISHED 1802** **Delaware**

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Du Pont Chemical Works, New York, N. Y., Pyroxylin and Coal Tar Chemicals.
Du Pont Fabrikoid Co., Wilmington, Delaware, Leather Substitutes.
The Arlington Works, 725 Broadway, New York, N. Y., Ivory Py-ra-lin and Cleanable Collars
Harrison Works, Philadelphia, Pa., Paints, Pigments, Acids and Chemicals.
Du Pont Dyestuff Works, Wilmington, Delaware, Coal Tar Dyestuffs.

AMERICAN DYESTUFF TRADE WITH THE ORIENT

By E. H. Killheffer

Editor's Note: The following article, by Dr. Killheffer, of the Newport Chemical Works, points out very clearly the "open sesame" of satisfactory relations between dyestuff manufacturer and consumer—whether in the domestic or foreign markets. There is no question but that absolute integrity both in product and practice—that is, both in manufacturing and sales departments—must be maintained if the American dyestuff industry is to secure and hold the position, both at home and abroad, to which the capital and labor invested therein entitle it.

In the Reporter for November 4th there is published an interview with Mr. Mizutani, which is the inspiration of this reply.

At the outset, it might be well to call to mind some of the conditions which obtained in the Oriental dyestuff market in normal or pre-war times. To those of us who have been privileged to reside in the Orient for any length of time and transact dyestuff business, information regarding qualities has been directly acquired and is therefore accurate. In my own case, I purchased in the Oriental market very considerable quantities of stocks which they had on hand shortly after the outbreak of the war, for shipment to and use in this country, and in so doing had occasion to personally examine the quality of most—if not all—of the dyestuffs used in that market.

On the other hand, piecemeal or hearsay information as to qualities used in the Orient has been quite general in this country. For illustration: It is a fact that very widely differing qualities of one and the same color have been used. Now it does not require a very great stretch of imagination to understand how "fractional information" of this sort would put great temptation in the minds and hands of a great many concerns whose sole aim has been to make as much as possible out of the dyestuff business "while the going was good."

All this is said not in a spirit of excuse or justification, but in my opinion does explain the reason or motive behind a practice which every reputable manufacturer knows exists and the evil effects of which all of us feel. Furthermore, the very urgent demand and the very limited supply has also played a large part in this much to be condemned practice, for the concerns whose aims were referred to before have simply gambled on market conditions to the extent that they figured practically anything would "get by," and that once the goods themselves were far away, the chances were they would not come back. Under these conditions adulteration and misrepresentation have gone merrily on.

That this is all logical and true, witness conditions in our own market. How many lawsuits are now pending, based on the same practices, and how many cases where there is ground for suit would not be pressed but for the determination of the victim to make the best of it?

The fact of the whole matter is that in these abnormal times there have been two kinds of development in our domestic dyestuff industry—one a very creditable one which we can call legitimate development. This is by far the smaller percentage — numerically at least—and in this class are the *actual manufacturers* who, through trials and tribulations, good experience and bad, have constantly labored to actually create an industry here to stay.

The second kind of development has been what we may for comparison call illegitimate, and in this class fall by far the larger number of concerns.

Both classes have one thing in common—they are in business to make money; but one has large investments and consequently risks in order to profit—the other has not.

This train of thought could be dwelt upon at much greater length, but I

think the outline as given sufficiently illustrates the point I have in mind. In passing, I might say that there is a small class of manufacturers who are really on the borderland between the two classes above referred to and who in some cases are, no doubt, guilty of the practices referred to by Mr. Mizutani, either through lack of experience in or ignorance of the dyestuff business.

Just as Mr. Mizutani suggests our dealing through regular well known Japanese importing firms or agencies, I would suggest such firms or agencies dealing as far as possible with reputable American manufacturers. This does not necessarily mean dealing directly in all cases, as it is certainly a very logical procedure to handle foreign business through well recognized importing or exporting houses, but this in turn does not preclude close relations between buyer and manufacturer.

I believe I can safely speak for all reputable American manufacturers to this extent—that it is our desire to furnish the best in merchandise and to stand squarely behind our goods. Buying or selling on sample, therefore, is perfectly safe if the dealings are between firms of repute.

I believe that our Japanese friends will agree that all of their experiences have not been of the disappointing kind, although, no doubt, there is great cause for complaint in a great many cases and I believe the percentage of disappointing or satisfactory cases will correspond very closely to the percentage relationship of the two classes of development above referred to.

To sum up, the same rule applies as to all merchandising transactions; that is to say. the dealings should be with firms whose name and reputation stand for something and who will at all hazards back up that reputation to the fullest extent.

THE DYER AND HIS LOVE

My darling is kind and true—
I simply love her eyes of Alizarine Delphinol;
By kisses sweet our love is fed
From lips so luscious and so Acid Magenta;
She offers to no other fellow
A lock of hair so brightly Citronine R;
Her dress, the daintiest ever seen,
Is of the latest shade of Gallocyanine BD Paste;
Her little hat (velours, I *think*)
For garniture has ribbons Chrysoidine YRP.
And so her charms I've thought it right
Here to set down in Nigrosine G and White!

—*Punch.*

FRED WETZEL & CO. N.Y.

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200 FIFTH AVE, NEW YORK WORKS: NEWARK, N. J.

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DINITROTOLUOL

CHROME RED
PONCEAU SCARLET
ACID YELLOW
CHROME BLUE BLACK
NAPHTHOL GREEN
CHROME NAVY BLUE

BUR DYEING

Vegetable specks in wool goods frequently make it necessary to bur-dye the pieces. This is done in the washing machine after the cloth is rinsed. If properly made and used cold the bath should have no effect upon the color of the wool. A good liquid bur-dye is made as follows: 50 pounds solid extract of logwood, 25 pounds soda ash, 12 pounds sulphate of copper.

Dissolve the logwood and sulphate of copper in water, then add the soda ash slowly, and boil. The strength and quantity of the dye depend upon the character and weight of the cloth. Enough logwood, soda ash and sulphate of copper are dissolved in a barrel, so that when the barrel is filled with water the dye will be strong enough to make three or four barrelfuls for use. Allow the goods to drain well before applying the dye, then close the gates and allow the pieces to run in the dye ten to fifteen minutes. Rinse well and extract.

Another method is as follows for 135 pounds of cloth: Steep one and a half pailfuls of ground sumac about half an hour and turn this solution into enough cold water to run the pieces in. Run one hour, then wind in a reel and let drain, after which enter the pieces in another cold bath made with 10 pounds of copperas and one pailful of pyrolignite of iron. Run for half an hour, then take out and wash.

This is suited for piece dyed goods. In using the process always rake the baths well before tentering the goods.

Hydro-Extracting

After washing, the goods are well whizzed for the next operation. If they are to go directly to the dryer, they should be thoroughly extracted; but if to be napped, enough moisture should be left to facilitate the work, and avoid any danger of impairing the strength of the cloth, which might result from napping the cloth when too dry.

The subsequent treatment of the goods in the finishing process depends very largely upon the kind and character of the cloth and the finish desired. It is impossible to lay down definite rules for all cases, as the treatment must be changed to suit the requirements. Not only different classes of goods, but cloths of the same class often require different treatment to secure the effect desired.

The cassimere, broadcloth, cheviot, melton and chinchilla require different treatments in some parts of the process. Other goods may require some of the same operations. The kersey and beaver require the steam or luster finish, the same as broadcloth, and mackinaw is not unlike the melton in finish.

In finishing cassimeres and goods requiring the steam or luster finish, nap-

YOU can't afford to use any but the finest
Oil Soluble Colors

We Manufacture the Finest

OIL ORANGE
OIL RED
OIL BROWN
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ping is a very important operation. The machines employed for this work are the teasel gig and the wire napper. The latter is accepted as an improvement over the former because of the amount of work it can turn off, but for real excellence of results nothing can equal the teasel gig when properly used. There are a number of types of teasel gigs, the up-and-down, the double-acting, the double-cylinder and the steam gig. The up-and-down is an old-time type. The cloth is attached to a top and bottom leader and run up and down, coming in contact with the teasels only once at each passage. If it is required to reverse the nap it becomes necessary to take off and reverse the piece.

The double-acting gig is arranged to run the cylinder in either direction. To reverse the nap it is necessary to turn the teasel slats and reverse the motion of the cylinder. With this machine the cloth comes in contact with the teasels on each side of the machine. The double-cylinder machine has two cylinders which can be run in the same or opposite directions as may be desired. Running the cylinders in opposite directions reverses the nap. This machine is very effective in raising a thick nap such as is required on luster-finished goods.

The steam gig is similar to the up-and-down machine, but has a hollow, perforated copper roll and a winding attachment for securing a luster finish.

The gig cylinder is equipped with twenty-four removable slats or teasel frames, and setting the teasels in these slats is of importance in securing uniform and perfect work.

The teasels should be as nearly uniform in size as possible, and the best results are secured by putting the smaller teasels in the top and the larger in the bottom row.

The teasels are first put into a basket or barrel having holes in the bottom. Boiling water is dashed over them, and they are immediately covered with a cloth. This softens the teasels so that they are more easily handled and more closely set in the slats. The water should run off immediately. If the teasels become too wet, the moisture in the pitch is liable to injure the teasel. Because of this it is best to prepare only a few slats at a time and have them promptly set and dried.

The Wire Napper

The cylinder of the wire napper contains a series of wire-covered rolls so constructed that as the cylinder turns forward the rolls revolve backward. This backward movement of the rolls eliminates the severe action of the wire upon the cloth that would otherwise result, and the nap is produced by a repeated picking up of the fibers rather than by a dragging effect. This quickly raises a thick nap, but where the luster finish is desired the best results can be secured by following with a few runs on the teasel gig to lay the nap more thoroughly.

The Cassimere Finish

The cassimere is supposed to show the pattern or figure effect of the weave or

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the arrangement of the colors, and should be finished close enough to bring out the design clearly.

The four harness twill weave, two up and two down, is frequently termed the cassimere weave, but the cassimere is not strictly confined to this weave. Where the design is entirely dependent upon the arrangement of the colors this weave is commonly used.

In fulled goods the pattern is more or less obscured by the felt, and must be cleared by the napping and shearing. The amount of napping required depends very largely upon the felt in the cloth. Careful oversight and good judgment are necessary to secure good results and avoid making the cloth tender.

Moistening the Goods

The gig should have a perforated water pipe for moistening the pieces during the napping process. The cloth should have all the moisture it will carry without showing a glazed effect on the surface. The right amount of moisture prevents excessive waste of fiber, and keeps the teasels from injuring the threads as the work nears completion.

Starting with Old Teasels

The slats selected for starting the work should be filled with worn teasels so as to act very gently upon the cloth until a fairly god nap is secured. From four to six runs on the double-acting machine should be enough.

Following this a better grade of work, that is, sharper teasels, should be introduced by removing every fourth slat and putting in six slats of better teasels. After four to six more runs, repeat the change by putting in a set of a still better grade, placing them midway between those of the other set. This procedure may be followed as required, but the number of changes and sets of slats to be used depends entirely upon the felted condition of the cloth, and can be determined only by the judgment of the finisher.

Goods constructed on the worsted principle and having but little fulling may require only the first grade of teasels, while the more heavily felted cloth may require several changes. For these reasons there can be no definite rules to govern the work.

The Progress of the Work

The finisher should make an occasional examination of the cloth by parting the nap to determine how the work is proceeding. When the threads show up round and clear, the nap should be reversed by turning the cloth end for end if on the up-and-down gig, or by turning the slats and reversing the cylinder if the double-acting gig is used. After this operation, give enough runs to turn the nap and no more. This leaves the nap in a lofty condition that insures against a sharp and "barby" feel to the finished cloth.

If the double-cylinder gig is used, the reversing is not necessary, as the cylinders can be run in opposite directions, which is equivalent to reversing the nap. Both cylinders should be run in the same direction at the end of the process.

Slats filled with medium and better

METHYL VIOLET
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Sales Office: 38 Water St., New York Factory: Brooklyn, N. Y.

grades of teasels may often be turned to use the opposite side instead of using another set.

When both sides of a set of slats have been used they should be taken out and thoroughly dried, thus renewing their usefulness and preventing the injury that is sure to result when the pith of the teasel remains wet.

In breaking in a new set of slats, it is best to flock the teasels to avoid their taking hold of the cloth too strongly. The teasels may be cleaned in the cylinder by the use of a hand-card, or when out of the cylinder by the use of a revolving brush made for the purpose.

If the wire napper instead of teasel gig is used, care should be taken to set the cloth on very lightly at first. There will be no need of reversing the nap, as it does not become so thoroughly laid as by the teasel gig.—*Textiles.*

ALIZARINE SAPPHIROLE

(*Continued from page* 9)

many blue chevrons worn have faded to a pale grey; this will not readily happen when Alizarine Delphinol is used.

My experience with this color has taught me that a word of warning is necessary in the application of Alizarine Delphinol. Many people have assumed that it is an easy levelling color, and that it may be salted into the bath like Patent Blue A; such assumption has naturally led to uneven results. No claim has ever been made for Alizarine Delphinol that it is as easy levelling as Patent Blue; on the contrary, it is definitly stated not to be, in the same way as Alizarine Sapphirole was understood not to possess similar levelling properties to Patent Blue. This was most practically acknowledged by the fact, that a cheaper type of Sapphirole was on the market, which was a mixture of Alizarine Sapphirole and Patent Blue. This was naturally more easy levelling than pure Alizarine Sapphirole, but was proportionately inferior in fastness to light.—*Dyer and Calico Printer.*

Editor's Note:—It is announced by the National Aniline & Chemical Company, Inc., that the dyestuffs discussed in the above article will be ready for quantity delivery early in 1919.

With a capital of $750,000, the Chapin Chemical Company has been incorporated under the laws of Delaware to manufacture chemicals.

We urge that the Textile Industry support the stand of the American Dyestuff Reporter for an American Dyestuff Industry.

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NOTES OF THE TRADE

Due to rapid expansion involving the erection of its new plant at Ashland, Mass., the United States Color & Chemical Company, 42 Broad Street, Boston, has increased its capital from $25,000 to $500,000. This increase was undertaken with the approval of the Capital Issues Committee. The company manufactures H-acid on a large scale and has a full line of alizarine yellows and browns, chrome red, anthracene brown and soluble nigrosines.

The recent epidemic of Spanish influenza was also seriously felt in England, and took its toll from the dyeworks, particularly in the Midlands section, where large numbers of operatives suffered attacks to the pronounced detriment of business. The period of sickness in these cases was reported to have been unusually long, some of the men remaining away from their posts from six to fourteen days.

The Seydel Manufacturing Company, Jersey City, N. J., has filed plans for the erection of an extension to its plant on Forrest Street, that city.

A leak in a still which contained oils used in the manufacture of aniline dyes caused an explosion recently in the Canarsie works of the National Aniline & Chemical Company. In the resulting conflagration two men were seriously injured and eight others sustained severe burns.

An estimated loss of $65,000 resulted when fire recently destroyed a portion of the still house at the plant of the former Federal Dye & Chemical Company, now known as the Union Dyestuff and Chemical Company, located at Kingsport, Tenn.

The Newport Chemical Works is contemplating the erection of an addition to its plant at Carrollville, Wis., to provide for increased operations. The headquarters of the company are in the First National Bank Building, Milwaukee.

American Aniline Products, Inc., New York, have brought suit in the Supreme Court of that State against the Lavonia Dye Company, of Georgia, for the recovery of $3,472, alleged to be due from the sale of dyestuffs last year.

The band composed of employees of the Ault & Wiborg Company, Cincinnati, literally "played" a prominent part in the local celebration of the signing of the armistice. The musicians in question regaled the cheering throngs with a number of patriotic selections from the steps of the city hall, while a large delegation from the company took part in the subsequent peace parade.

FRED WETZEL & CO. N.Y.

NEWBERT CO. EXPANDS

The notable expansion of the Newbert Color Co., of 88 Broad Street, Boston, during the fifteen years they have been in business has been further emphasized by their becoming selling agents for Walter F. Sykes & Co., who have American selling rights for the color products of the St. Denis Company of France. TheNewbert Color Co. are the New England agents for the Stamford Extract Manufacturing Co. They also handle the Sumac products of William P. Miller, of Milford, Virginia, and represent the Yancy Bark Co., manufacturers of chestnut and bark extracts, in the same state, and also the Warner Chemical Works, of Warner, New Hampshire, manufacturers of iron liquor and other textile chemicals.

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The application of the dyestuff to textiles is as much an art as the production of the dyestuff.

Dyeing is a chemical, not a mechanical process. An intimate knowledge of the possibilities of every dyestuff is often necessary to meet the particular requirements of the consumer, and the variation of local conditions, due to differences in the quality of water, steam and chemicals, makes the dyehouse problem an individual one.

Because of this individual factor the technique of the application of dyes commands today, as it has done in the past, the best talent among those distributers who cater to the highest class of trade.

The technical department of this Company is manned by chemists who have been picked because of their expert knowledge, practical experience, and demonstrated ability. Well-equipped laboratories are maintained at our different offices, for the service of our customers.

You are invited to submit your problems. Your questions are welcome. Our advice in answer involves no obligation on your part.

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